



# ABOUT US

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**Manara Works** provides solutions and products of highest quality for Industrial and Commercial markets. We collaborate with world leading suppliers to provide solutions of highest quality and standards. Our professional team has extensive expertise in the various technologies related to the solutions we provide; applying best practices and methodologies they have been playing a strong consultative role, delivering superior services, demonstrating commitment and dedication. WE DELIVER RESULTS.

## VISION

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Preferred supplier of world-class solutions and services within the oil & gas, water, energy and construction market.

## MISSION

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Empower result oriented and talented team to deliver excellence and maintain a rewarding relation with partners and customers.

## VALUES

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QUALITY



RELIABILITY



SERVICE



PRICE



# MANARA SOLUTIONS

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LED  
SOLUTIONS



RENEWABLE  
SOLUTIONS



FIRE PROTECTION  
SOLUTIONS



INDUSTRIAL  
FILTRATION



ENVIRONMENTAL  
SOLUTIONS



# SCOPE OF WORK

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## Facility Survey

- Current Situation.
- Customer Satisfaction.
- Major Consumption.
- Special Requirement.



## Consultative Role

- Best Matching.
- Different Solution.
- Maximum Benefits.
- Customer Satisfaction.



## Supply

- Special Type Products.
- Total Solution.
- Parts Replacement.
- Long Term Services.



## Innovative solutions Provider

- Reaching client end result.
- Extra mile approach.
- Customer satisfaction.
- Total value selling.





# LED SOLUTIONS

Energy costs are rising and are not likely to drop. While new technologies and renewable energy sources are gaining in popularity, energy efficiency remains the easiest way to cut energy use. The most important is the role of energy and its connection to the economy. It takes energy to make anything, from a piece of steel to a loaf of bread, it even takes energy to transport anything.

Most advanced lighting technology with Healthy and Economical Solutions . Our products features allows us to provide you with a remarkable product.

## SOLUTIONS

- Outdoor Applications.
- Indoor Applications.



# OUTDOOR

Street Lights & Infrastructure

Car Parks

Pipelines

Sport Grounds

Gas Station

Industrial / Oil & Gas

+ More

# INDOOR

Culture & Education

Offices

Shopping Centre

Health Care

Industrial

Warehouses

+ More



# PRODUCTS FEATURES



## Main Features

Save up to 80%  
5 years' warranty  
80,000 Lighting hours  
Auto – Manual switch  
Motion\ sound detector  
Different Light Beam Angle  
Wide range of color temperature  
Input voltage: 90-305VAC 50-60HZ  
Work temperature: - 40 ° C ~ 65 ° C



## Other Features

Dimming  
Fire proof  
No UV light  
No RFI,EMI  
UL- certified  
Explosion proof  
No heat generated  
Dust & Water Proof  
Accept high humidity

## Top Features



Less Energy consumption



Long life span



5-10 years warranty



No heat Generated



High safety factor





# RENEWABLE SOLUTIONS

Harnessing the power of the sun to generate electricity is active protection of the environment and a valuable contribution to achieving a sustainable supply of energy. But we do not offer products that protect only the environment, but as well they emphasis on sustainable and economic wise solutions. We in MANARA aim to participate in generating a great future for all. MANARA solar energy as a specialized in the field of "design and execution" of solar power plant, we emphasis on the "on-time and on-budget" construction of solar power plants and solutions, along with focusing on optimizing the superior output

## SOLUTIONS

- Private residential buildings
- Public buildings
- Agricultural applications
- Stand-alone installations

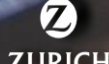




# SOALR R&D

Solar electricity generation is one of very energy technologies with the potential to grow to very large scale. As a consequence, massive expansion of global solar generating capacity to multi-terawatt scale is very likely an essential component of a workable strategy to mitigate climate change risk. Recent years have seen rapid growth in installed solar generating capacity, great improvements in technology, price, and performance, and the development of creative business models that have spurred investment in residential solar systems.

Solar power is a form of energy harnessed from the Sun and heat of the sun's rays. It is renewable, and therefore a "green" source of energy. The resulting technologies have promising implications for the future of renewable energy and sustainability.



# SOLAR & NANO

At the NANO-scale, things behave differently. And today the unique properties of various. NANO materials are being used to increase the efficiency of tomorrow's renewable energy technology. Robin Wylie explores the many ways in which cutting-edge nanotechnology is already being used to improve energy sector.

## Nanotechnology Signature Initiative\* Nanotechnology for Solar Energy Collection and Conversion

**Overview**  
Solar energy is a promising energy source that has the potential to reduce U.S. dependence on fossil fuels. New innovations and fundamental scientific breakthroughs are required, however, to accelerate the development of solar energy technologies that are economically competitive with conventional fossil fuels. Agencies participating in the NNI have identified a number of physical phenomena where nanotechnology may play a critical role in overcoming current performance barriers to substantially improve the collection and conversion of solar energy. Certain engineered nanomaterials and nanostructures have been shown to enhance the absorption of light, increase the conversion of light to electricity, and provide better thermal storage and transport. Nanostructured artificial photosynthetic systems mimicking those found in nature will be important for the conversion of solar energy into chemical fuels. A deeper theoretical understanding of conversion and storage phenomena at the nanoscale, improvements in the nanoscale characterization of electronic properties, and developments that enable economical nanomanufacturing of robust devices will be critical to exploiting the benefits of nanotechnology for solar energy. Product lifetime and reliability of technologies incorporating nanotechnology must also meet or exceed the performance of conventional solar technologies.

**Goals**  
Enhance understanding of conversion and storage phenomena at the nanoscale, improve nanoscale characterization of electronic properties, and help enable economical nanomanufacturing of robust devices.

**Thrust Areas**

- Improve photovoltaic solar electricity generation
- Improve solar thermal energy generation and
- Improve solar-to-fuel conversions with nanotechnology

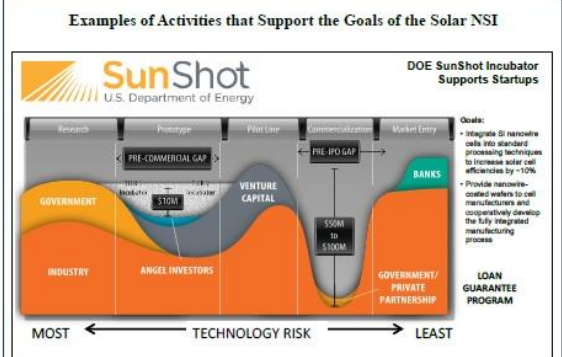
**Agencies Involved**  
Department of Commerce (National Institute of Standards and Technology), Department of Defense, Department of Energy, the Intelligence Community, National Aeronautics and Space Administration, National Science Foundation, and U.S. Department of Agriculture (National Institute of Food and Agriculture).

### Examples of Activities that Support the Goals of the Solar NSI

**NIST Near-Field Scanning Microwave Microscopy**

Diode laser Video camera

Tip and PV sample Closed-loop z-axis stage



**DOE Office of Science**

*Fuels from Sunlight Energy Innovation Hub: Joint Center for Artificial Photosynthesis (JCAP)*

Natural photosynthesis Artificial photosynthesis

JCAP Partners: Caltech, LBNL, SLAC, UC-Irvine and UC-San Diego.

**NSF Sustainable Energy Pathways (SEP)**

University of Chicago, Northwestern University, University of California-Los Angeles

Metal Electrode Polymer II Insulating Layer Polymer I ZnO Glass/ITO

Sunlight

**NIST Super-Continuum Solar Simulator**

Supercontinuum Laser: 8 Watts, 400 to 2400 nm, 400 fs, 1 to 80 MHz

Atten. BS Spatial Mask Col. Prism Shaper

200  $\mu$ m MM Fiber XY Scanning Focused Spot Probe

AM1.5 match

**DOE/NSF Next Gen Photovoltaics II**

PERFORMANCE TIME

- Exceeding the Shockley-Queisser limit
- Overcoming the Staebler-Wronski effect
- Advancing light trapping
- Now: earth-abundant PV materials



# PRODUCTS FEATURES



## Main Features



Excellent high mechanical loads, certified to withstand high wind load (2400 pa) and snow load (5400 pa).



In-line and post EL (Electroluminescence) machines.



PID resistant.



Positive power tolerance up to 3% extra output.



Excellent low light performance.



Salt mist and ammonia resistant to endure coastal and agricultural environments.

## Top Features



25 years warranty



High Conversion Efficiency



Long life span



Greater Load Capacity



Lower Temperature



High Wattage Ratings





# FIRE PROTECTION SOLUTIONS

The devastating effects of a refinery fire can result in lost production and worker injuries. In the event of a fire, 3M Fire Protection Products are designed to help mitigate fire spread, providing additional time to control the fire and to allow for a safe evacuation.

## SOLUTIONS

- 3M™ Interam™ Endothermic Mat E-5A-4.
- 3M™ Fire Barrier Duct Wraps.



# APPLICATIONS

- **Electrical & Control Systems:** 3M™ Interam™ Endothermic Mat is designed to provide cable trays and conduits with full envelope protection in the event of a fire.
- **Structural Steel:** Installing multiple layers of 3M™ Interam™ Endothermic Mat flexible wrap allows you to tailor the desired amount of fire protection — up to 4 hours for structural steel
- **Vessel & Pipeline Protection:** When 3M™ Interam™ Endothermic Mat is applied to vessel skirts and pipe lines, it minimizes the effects of fire exposure by flame impingement in order to reduce the steel's rate of temperature rise and to delay structural failure.



# 3M™ Interam™ Endothermic Mat E-5A-4

Leaving cable trays and structural steel exposed to fire can lead to severe damage of a refinery's superstructure, thus compromising continuity of operations and life safety in the event of a fire. 3M™ Interam™ Endothermic Mat provides easy-to-install, full-envelope fire protection for a broad range of critical components including structural steel, electrical raceways and vessel skirts. Its flexibility and space-saving design allow 3M™ Interam™ Endothermic Mat to fulfill installation requirements, even in space-constrained situations



# 3M™ Fire Barrier Duct Wraps

A key objective in advancing innovation for fire rated duct wrap is to attain less thermal transfer (more fire resistance) in a lighter product. 3M has developed 3M™ Fire Barrier Duct Wrap 615+ to be the only fire rated duct wrap product you'll need to help protect both grease ducts and air ducts in an easy to install format (lightweight, flexible) while passing the necessary fire tests to achieve two-hour fire resistance requirements.



# GLOBAL MAJOR FIRE PROTECTION CLIENTS

  
**ConocoPhillips**  
*Alaska-structural steel. 2011*

  
  
*Alaska-structural steel 2012*

**ExxonMobil**  
Energy lives here™  
*Texas-structural steel*

**aramco**   
*Saudi Arabia-gland boxes. 2012*

  
*Italy-emergency circuitry.  
2011 , 2013*


  
**TOTAL**  
COMMITTED TO BETTER ENERGY  
*United Kingdom-emergency circuitry.  
2013*

  
**Canadian Natural**  
*Canada-structural steel2013*

**SUNCOR**   
*Canada-structural steel2013*

  
**Statoil**  
*Norway-emergency circuitry*

  
**NOVATEK**  
*Russia-Cable tray emergency circuitry. 2013*

  
**LUKOIL**  
*Italy-Emergency circuitry.  
2013*

+More







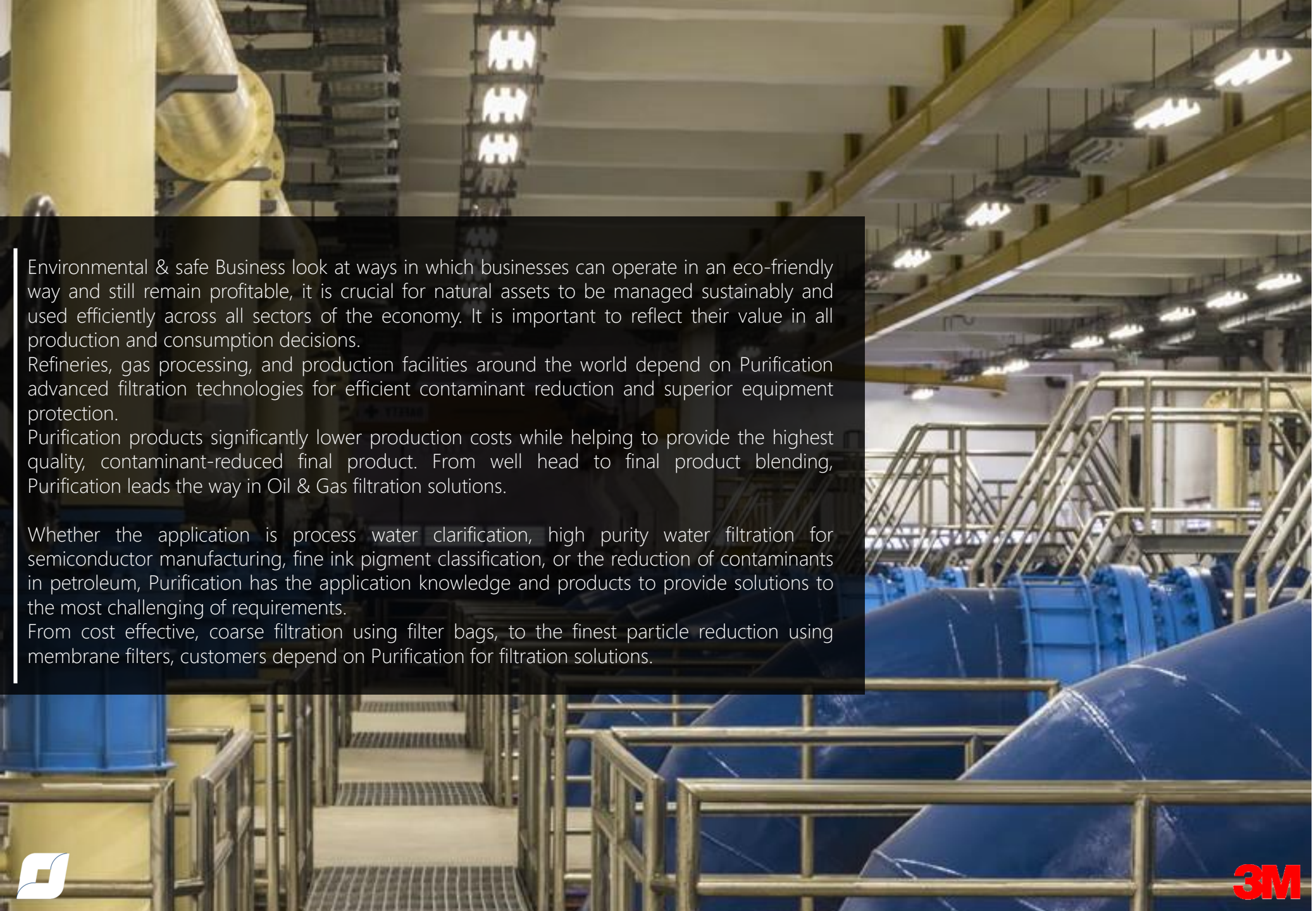
# INDUSTRIAL FILTRATION

Refineries, gas processing, and production facilities around the world depend on 3M Purification advanced filtration technologies for efficient contaminant reduction and superior equipment protection. 3M Purification products significantly lower production costs while helping to provide the highest quality, contaminant-reduced final product. From wellhead to final product blending, 3M Purification leads the way in Oil & Gas filtration solutions.

## SOLUTIONS

- Depth Filter Cartridges.
- Surface Filter Cartridges.
- Charge Modified Filter Cartridges.
- Large Diameter Cartridges, Bag Filters and Specialty Systems.
- Metal Cartridges.
- Industrial Filter Housings.



The background image shows an industrial facility with large blue pipes, metal railings, and overhead lighting. The scene is brightly lit, suggesting an indoor or well-lit outdoor environment. The pipes and railings are arranged in a complex, multi-level structure.

Environmental & safe Business look at ways in which businesses can operate in an eco-friendly way and still remain profitable, it is crucial for natural assets to be managed sustainably and used efficiently across all sectors of the economy. It is important to reflect their value in all production and consumption decisions.

Refineries, gas processing, and production facilities around the world depend on Purification advanced filtration technologies for efficient contaminant reduction and superior equipment protection.

Purification products significantly lower production costs while helping to provide the highest quality, contaminant-reduced final product. From well head to final product blending, Purification leads the way in Oil & Gas filtration solutions.

Whether the application is process water clarification, high purity water filtration for semiconductor manufacturing, fine ink pigment classification, or the reduction of contaminants in petroleum, Purification has the application knowledge and products to provide solutions to the most challenging of requirements.

From cost effective, coarse filtration using filter bags, to the finest particle reduction using membrane filters, customers depend on Purification for filtration solutions.





# ENVIRONMENTAL SOLUTIONS

While being in industry, environmental awareness take place to be one of the most important aspects to be monitored. Environment here does contain many fields including Energy, Waste disposal and Environment condition of each working site or project. Each site is required to fit in such environmental specifications to match what authorities usually require. Those conditions are not limited to proper waste disposal or water treatment, but include "Environmental Impact Assessment – EIA" which is the assessment of the environmental consequences (positive and negative) of a plan, policy, program, or actual projects prior to the decision to move forward with the proposed action.





# SOLUTIONS

Our Innovative Solutions cover the below sectors.

- Environmental Engineering & Management.
- Energy Auditing & Management.
- Health & Safety
- Risk Assessment.
- Management Systems.
- Geographic Information System (GIS) & Geospatial Services Security:
  - Industrial / Cyber Security Risk Assessment.
  - Management and Compliance.
- Sustainability and Corporate Social Responsibility(CSR).



# ENVIRONMENTAL ASSESSMENT

The purpose of Environmental assessment is to ensure that decision makers consider and respect environmental impacts while deciding to proceed or not to proceed with any project. Environmental Impact Assessment is a process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made. This assessment includes Industrial products, genetically modified plants and fuzzy logic. MANARA, along with its partner working in these field provides you with essential technology to evaluate, communicate and the improve your project states.



# ENVIRONMENTAL ENGINEERING

Environmental solutions provide cost-effective solutions to problems found in industrial, commercial and residential sites. The focus in this part is to provide engineering solutions that respect the Environmental code that any institute follows. Our scope includes but not limited to Solid Control Equipment's, Handling Tools and Drilling Waste Treatment & Disposal Techniques. A wide range of experienced partner is available within MANARA to provide consultancy on all the above listed services and more.



ISO  
22000:2005



ISO  
50001:2011



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